

What is claimed is

1 1. A method of establishing a quality of service session between a
2 correspondent node and a mobile node, the mobile node having a home address in a home
3 network and being temporarily connected at a care-of address in a foreign network, the
4 method comprising the steps of:

5 generating, in the foreign network, a modified reply message having a source
6 address of the mobile node's care-of address and a destination address of the
7 correspondent node; and

8 transmitting the modified reply message.

1 2. The method of claim 1, further comprising the steps of:

2 receiving, in the home network, a request message having a source address of the
3 correspondent node and a destination address of the mobile node's home address;

4 creating a modified request message by replacing the destination address of the
5 request message with the mobile node's care-of address; and

6 transmitting the modified request message to the foreign network, whereby the
7 modified reply message is generated responsive to the modified request message.

1 3. The method of claim 2, wherein

2 the step of generating the modified reply message is carried out by proxy device in
3 the foreign network, the proxy device being associated with the mobile node; and

4 further comprising the steps of:

5 responsive to receipt of the modified request message at the proxy device,
6 sending a quality of service indication signal to the mobile node, whereby the modified
7 reply message is generated responsive to receipt of a quality of service acknowledgment
8 from the mobile node.

1 4. The method of claim 2, wherein

2 the quality of service session is an RSVP session;

3 the request message is a Path message; and
4 the modified reply message is a Reservation message.

1 5. The method of claim 1, further comprising the steps of:
2 receiving, in the home network, the modified reply message;
3 creating a further modified reply message by replacing the source address with the
4 mobile node's home address; and
5 transmitting the further modified reply message.

1 6. The method of claim 5, wherein the correspondent node generates the
2 request message and receives the further modified reply message.

1 7. The method of claim 5, wherein:
2 the correspondent node is associated with a correspondent proxy device, whereby:
3 the correspondent proxy device generates the request message responsive
4 to a quality of service request from the correspondent node; and
5 the correspondent proxy device generates a quality of service confirmation
6 responsive to receipt of the further modified reply message.

1 8. The method of claim 1, wherein the step of generating the modified reply
2 message is carried out in the mobile node.

1 9. The method of claim 1, wherein the step of generating the modified reply
2 message comprises:
3 generating a reply message having a source address of the mobile node's home
4 address and a destination address of the correspondent node; and
5 replacing the source address with the mobile node's care-of address, thereby
6 generating the modified reply message.

1 10. The method of claim 1, in which the step of generating the modified reply
2 message is carried out by a proxy device in the foreign network, the proxy device being
3 associated with the mobile node.

1 11. The method of claim 1, wherein
2 the quality of service session is an RSVP session; and
3 the modified reply message is a Reservation message.

1 12. A mobile IP environment capable of supporting a quality of service
2 session, comprising:
3 a correspondent node;
4 a mobile node having a home address in a home network and being temporarily
5 connected at a care-of address in a foreign network,
6 a proxy device, in the foreign network, the proxy device associated with the
7 mobile node for generating a modified reply message having a source address of the
8 mobile node's care-of address and a destination address of the correspondent node.

1 13. The mobile IP environment of claim 12, wherein the proxy device is
2 located in the mobile node.

1 14. The mobile IP environment of claim 12, wherein the proxy device is
2 located outside the mobile node and coupled to the mobile node.

1 15. The mobile IP environment of claim 12, wherein:
2 the quality of service session is an RSVP session;
3 the modified reply message is a Reservation message.

1 16. A system capable of supporting a quality of service session, comprising:
2 a correspondent node;

3 a mobile node having a home address in a home network and being temporarily
4 connected at a care-of address in a foreign network,

5 a proxy device, in the foreign network, the proxy device associated with the
6 mobile node for generating a modified reply message having a source address of the
7 mobile node's care-of address and a destination address of the correspondent node.

1 17. The system of claim 16, wherein the proxy device is located in the mobile
2 node.

1 18. The system of claim 16, wherein the proxy device is located outside the
2 mobile node and coupled to the mobile node.

1 19. The system of claim 16, wherein:
2 the quality of service session is an RSVP session;
3 the modified reply message is a Reservation message.